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# **Study of association between Iron deficiency anemia and febrile convulsion in children aged 9 months to 5 years in Ali- Asgar hospital ,Ardabil**

## **SUMMARY**

Febrile convulsion are the most common type of seizure and occur in 2-4% of all children, that common in 9 months to 5 years .The risk factors for febrile convulsions remain largely unknown. , one of this risk factors can be Iron deficiency anemia .

Iron is involved in the metabolism of several neurotransmitters , and monoamine and aldehyde oxidase are reduced in Iron deficiency anemia, which is common during the second and the third years of life and has been associated with behavioural and development disturbances .

Thus we investigated the association between Iron deficiency anemia and Febrile convulsion by a prospectively case – control study.

100 children aged 9 months to 5 years admitted to ali-asgar hospital ,ardabil, in 1381 solar hejira with diagnosis of Febrile convulsion, were enrolled in the study , they were healthy children ,with out central nervous system disease . A Febrile convulsion was defined as a seizure that occurred while the child had a subaxillary temprature of at least 38°C . anemia was defined as the presence of hemoglobin concentration <10.5g/dlit, hematocrits<33%.

100 controls were selected that were children admitted to the same ward with fever (subaxillary temperature >38°C) caused by upper and lower respiratory tract ,gastrointestinal and urinary tract infections.

In this study 56% of case group were male and 44% were female, and peak of Febrile convulsion prevalence was in 1-2 years.

Hemoglobin concentration (Hb)and hematocrits (Hct) were measured in 100 children with Febrile convulsion and compared with 100 controls . 20 patient in case group and 18 patient in control group had lower level of Hb and Hct than it normal range for same age . Thus there were no significant difference between Hb concentration and Hct in case and control. For distinguish relation between Febrile convulsion and Iron deficiency anemia we help with Chi-square statistic test , the result of it show no relation between Febrile convulsion and Iron deficiency anemia.

## **KEY WORDS**

- 1-Iron deficiency anemia.
- 2- Febrile convulsion.